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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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7590

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EXAMINER
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MOORE JR, MICHAEL J

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental  
Notice of Allowability**

Application No.

09/823,871

Examiner

Michael J. Moore, Jr.

Applicant(s)

STILES ET AL.

Art Unit

2616

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Applicant Initiated Interview on 9/29/06.
2. ☒ The allowed claim(s) is/are 13-25 and 28-67 (renumbered 1-53, respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                                 |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|  | 9. <input type="checkbox"/> Other _____.  |

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dan DeVos (Reg. No. 37,813) on 8/8/06.

The application has been amended as follows:

#### In the Claims:

In claim **35**, on line 3 as well as on line 5, replace the phrase "certain ones" with the word --those--.

In claim **47**, insert the limitation --wherein all network trunks coupled to the single network element are coupled to the set of line cards,-- after the limitation "a set of one or more line cards coupled to one or more network trunks,".

In claim **47**, on line 6, replace the phrase "each of said line cards" with --each of said set of line cards and said plurality of line cards--.

### ***Drawings***

2. The drawings were received on 5/22/06. These drawings are acceptable and have been entered.

### ***Allowable Subject Matter***

3. Claims **13-25 and 28-67** (*renumbered 1-53, respectively*) are allowed.
4. The following is an examiner's statement of reasons for allowance:

Regarding *amended* claim **13**, *Tomar et al. (U.S. 6,804,248)* teaches a TMO switch 455 in Figure 4 that contains a plurality of tributary cards and trunk cards coupling an access loop and IOF ring (multiple TDM rings) via a cross-connect as shown by the backplane configuration in Figure 5.

*Tomar et al.* as well as the other prior art of record fail to teach “wherein a first number of the line cards in the slots are to be coupled to customer premise equipment to form TDM access rings, a second number of the line cards in the slots are to be coupled to network elements to form collector rings, and wherein the first number is larger than the second number”.

Regarding claims **14-20**, these claims are further limiting to claim **13** and are thus also allowable over the prior art of record.

Regarding claim **21**, *Tomar et al. (U.S. 6,804,248)* teaches a TMO switch 455 in Figure 4 that contains a plurality of tributary cards and trunk cards coupling an access loop and IOF ring (different rings) via a cross-connect as shown by the backplane configuration in Figure 5.

*Tomar et al.* as well as the other prior art of record fail to teach “wherein one of the rings includes other network elements which are coupled to customer premise equipment by TDM access rings of which that customer premise equipment is a part”.

Regarding claims **22-25 and 28-34**, these claims are further limiting to claim **21** and are thus also allowable over the prior art of record.

Regarding claim **35**, *Tomar et al. (U.S. 6,804,248)* teaches a TMO switch 455 in Figure 4 that contains a plurality of tributary cards and trunk cards (aggregation and

access interfaces) coupling an access loop and IOF ring via a cross-connect as shown by the backplane configuration in Figure 5.

*Tomar et al.* as well as the other prior art of record fail to teach “those of the multi-purpose slots acting as access interfaces are coupled to customer premise equipment with TDM access rings...wherein the sum of the bandwidth to the access interfaces is greater than the sum of the bandwidth to the aggregation interfaces”.

Regarding claims **36-46**, these claims are further limiting to claim **35** and are thus also allowable over the prior art of record.

Regarding claim **47**, *Tomar et al.* (U.S. 6,804,248) teaches a TMO switch 455 in Figure 4 that contains a plurality of tributary cards (plurality of line cards) and trunk cards (set of line cards) coupling an access loop and IOF ring via a cross-connect as shown by the backplane configuration in Figure 5.

*Tomar et al.* as well as the other prior art of record fail to teach “a full cross connect coupled to each of the set of line cards and the plurality of line cards, wherein the sum of the bandwidth between the full cross connect the plurality of line cards is greater than the sum of the bandwidth between the full cross connect and the set of line cards.

Regarding claims **48-59**, these claims are further limiting to claim **47** and are thus also allowable over the prior art of record.

Regarding claim **60**, *Tomar et al.* (U.S. 6,804,248) teaches a TMO switch 455 in Figure 4 that contains a plurality of tributary cards and trunk cards coupling an access

loop and IOF ring (multiple TDM rings) via a cross-connect as shown by the backplane configuration in Figure 5.

*Tomar et al.* as well as the other prior art of record fail to teach "a plurality of TDM access rings coupled to line cards inserted in the line card slots of the first network element to connect different pieces of customer premise equipment... wherein the sum of the bandwidth of the plurality of TDM access rings in the first network element is greater than the bandwidth of the first TDM collector ring".

Regarding claims **61-67**, these claims are further limiting to claim **60** and are thus also allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

5. Applicant's arguments with respect to *amended* claims **13-25 and 28-34** have been fully considered and are persuasive. The rejections of these claims have been withdrawn.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jha (U.S. 6,999,479) is an additional reference considered pertinent to this application.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (8:00am - 4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael J. Moore, Jr.  
Examiner  
Art Unit 2616

mjm MM

*Seema S. Rao*  
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